

## PATENT COOPERATION TREATY

PCT

REC'D 25 OCT 2005

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

WIPO PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CPGNA30528		FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/CN03/00580	International filing date (day/month/year) 18.Jul2003 (18.07.03)	Priority date (day/month/year) 30.Jun2003 (30.06.03)	
International Patent Classification (IPC) or national classification and IPC IPC7 C12Q1/68			
Applicant TSINGHUA UNIVERSITY et al			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 18.Jul2003(18.07.03)		Date of completion of this report 29.Sep2005(29.09.05)	
Name and mailing address of the IPEA/CN The State Intellectual Property Office, the P.R.China, 6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088 Facsimile No. 86-10-62019451		Authorized officer JIA, Shujin Telephone No. 86-10-62085076	

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/CN03/00580

## Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- |         |       |                                     |
|---------|-------|-------------------------------------|
| pages   | _____ | as originally filed/furnished       |
| pages * | _____ | received by this Authority on _____ |
| pages * | _____ | received by this Authority on _____ |
- ☐ the claims:
- |         |       |   |
|---------|-------|---|
| pages   | _____ | as originally filed/furnished                             |
| pages * | _____ | as amended (together with any statement) under Article 19 |
| pages * | _____ | received by this Authority on _____                       |
| pages * | _____ | received by this Authority on _____                       |
- ☐ the drawings:
- |         |       |  |
|---------|-------|--|
| pages   | _____ | as originally filed/furnished                      |
| pages * | _____ | received by this Authority on 13 JUN2003(13.06.03) |
| pages * | _____ | received by this Authority on _____                |
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement:**

Novelty (N)	Claims	1-76	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	15,17,18,21,26,29-32,34,35,42-44,47,49-53,55,60,61,64-76	YES
	Claims	1-14,16,19,20,22-25,27,28,33,36-41,45,46,48,54,56-59,62,63	NO
Industrial applicability (IA)	Claims	1-76	YES
	Claims	NONE	NO

**2. Citations and explanations (Rule 70.7)**

Document 2: CN1405322A 26.MAR.2003(26-03-2003)  
((BOHU-N) BOHUA GENE CHIP TECHNOLOGY CO LTD SHANGH)

The solutions of claims 1-76 are new. Claim 1-76 have novelty under PCT Article 33(2).

In light of the documents cited in the international search report, it is considered that the invention as defined in at least some of the claims, specially claims 1-14,16,19,20,22-25,27,28,33,36-41,45,46,48,54,56-59,62,63, does not appear to meet the criteria mentioned in Article 33(3)PCT, i.e. does not appear to involve an inventive step (see international search report, in particular the documents cited X and corresponding claim references). For example , according to document 2,it disclosed a method of detecting HBV、HCV、HIV and TP in a sample by gene chip, which comprising :isolating nucleic acid from samples, performing RT-PCR, labeling probe, hybridizing, detecting (see, claim4). Claim 1 of document 2 also disclosed that the chip consist of target gene,positive control negative control and blank. Reference to document 2, claims 1-14,16,19,20,22-25,27,28,33,36-41,45,46,48,54,56-59,62,63 of the present invention are obvious to those skilled in the art although some claims defined to HLA or other routine technology.

Claims 1-76 have industrial applicability under PCT Article 33(4), because the solutions of claims 1-76 can be made or used in the industry.